**K-5 Math Lesson Plan**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Teacher: Flick** | | | **Grade: 3** | | | **Date(s)**: LP3 August 29, 2012 |
| **Unit Title: Unit 1 -** Place Value with Addition and Subtraction within 1,000 | | | | **Corresponding Unit Task:** Taught prior to Performance Task 1; ***This lesson will mainly focus on number recognition and basic place value understanding.*** | | |
| **Essential Question(s):**   * How does place value understanding help me add and subtract numbers? * Why do I need to know multiple strategies to add and subtract numbers? * What strategies can I use to add and subtract multi-digit numbers? | | | | | | |
| **Materials/Resources** | | | | **Essential Vocabulary** | | |
| **Teacher:**   * Place value scavenger hunt (adapted from 3rd Grade Math Initiative 1Q LP04) * Elmo/projector * Anchor chart: “Forms/Ways to Represent Numbers” * “Number words” poster * Flash cards/construction paper cards with numbers represented in different forms * PSJ labels | | **Student:**   * Math binder * Math text books * Large white construction paper per student * “Monkeying Around with Place Value” matching game per pair * “In The Right Order” worksheet per student * Quiz per student * PSJ * Planner | | | **Supporting vocabulary:** digit, value  **Essential vocabulary:** place value, ones, tens, hundreds | |
| **Learning Experience** | | | | | | |
| **8 Mathematical Practices:**  √ 1. Make sense of problems and persevere in solving them.  √ 2. Reason abstractly and quantitatively.  √ 3. Construct viable arguments and critique the reasoning of others.  √ 4. Model with mathematics.  √ 5. Use appropriate tools strategically.  √ 6. Attend to precision.  √ 7. Look for and make use of structure.  √ 8. Look for and express regularity in repeated reasoning. | **Common Core State Standards: 3.NBT.1 *(correlates to NCSCOS objective 1.01)*** Use place value understanding to round whole numbers to the nearest 10 or 100. | | | | | |
| **I Can Statement(s):**   * I can recognize numbers from 0 to 1,000. * I can recognize numbers displayed in standard form, word form, expanded form, and picture form. * I can demonstrate/model numbers using standard form, word form, expanded form, and picture form. * I can read numbers having one, two, three, and four digits. | | | | | |
| **Activating Strategy/Hook:**  Get up and moving! Post index cards strategically around the classroom with whole numbers that answer the problems to the “Place Value Scavenger Hunt”. (You may want to make the letters on the index cards spell a secret message for the kids to unscramble when they are finished hunting.) Display the problems on the “Place Value Scavenger Hunt” sheet on the Elmo, or provide students with their own scavenger hunt sheet. Set the timer, allowing students to “hunt” for the correct answers. After time is up, students should return to their seats and be provided an opportunity to share their reasoning with the class.  (If you choose to not incorporate movement, use this alternate activity: Students need to have their math text books on their desks. Display the problems on the “Place Value Scavenger Hunt” sheet one-by-one. When students have “found” the answer, have them raise their hand. Allow students an opportunity to share their reasoning with the class.) | | | | | |
| **Teacher Directed:**  Say: *Today we are going to continue learning to represent numbers having three-digits.*  Tell students that there is one more form that we haven’t discussed yet, ***word form***. Add it to the anchor chart. Tell students you represent a number using word form by writing that number out in words. Write the number 96 on the board, and then write the word *ninety six*.  Review the anchor chart from yesterday titled “Forms/ways to Represent Numbers”. Allow student participation to create a place value chart on the board. (At this point, depending on where your class is, you may want to use a number in the thousands, just for fun – and maybe even ten-thousands and hundred-thousands!) Allow the class an opportunity to review representing number(s) in the chart four ways.  (You may want to create another anchor chart or poster listing number words to help students accurately spell the numbers when using word form.) | | | | | |
| **Guided Practice:**  Have students stand up. Review the physical movements for the different forms: standard form = students stand up straight, expanded form = students stand with arms out like a plus sign, word form = students make a “w” with their thumbs and pointer fingers, and picture form = students pretend like they are taking a picture with an imaginary camera. Hold up cards representing a variety of numbers in different forms. Students have to decide what form is being shown and do the physical movement that represents that form. You can visually assess student’s understanding.  Students will return to their seats. Provide them with a large piece of white construction paper. (Model each step of the activity set-up.) Students should hold their papers horizontally. Instruct students to fold their papers in fourths.  Hundreds Tens Ones Form  Standard  1  2  3  Expanded  Word  Picture    *fold lines*  Have students label the columns from left to right: hundreds place, tens place, ones place, form. Next, have students choose a three digit number and write it in standard form. Students should represent the same number using the other forms learned.  *Partner Activity:*  Cooperative pairs will play “Monkeying Around with Place Value” matching game, and then complete the accompanying sheet, “In The Right Order”. | | | | | |
| **Independent Practice:**  Students will take a quiz independently. The quiz should assess students understanding and ability to represent whole numbers in a variety of forms (standard, expanded, word, picture), as well as their understanding of the essential and supporting vocabulary. | | | | | |
| **Closing/Summarizing Strategy:**  Review the lesson: Discuss the “I can” statements listed above. Have students discuss their feelings (Think-Pair-Share): *Can you? Why or why not? What do I need more practice on?* Students will write any questions or areas needing more assistance in the “parking lot”.  Assign homework: Problem Solving Journal (PSJ) problem:  *The table below shows the number of endangered plants and animals in 2001.*   |  | | --- | | ***ENDANGERED SPIECES IN 2001*** | | *Plants 737* | | *Animals 507* |  * *What is the word form for the number of endangered animals?* * *What digit is in the hundreds place of the number of endangered plants?* * *Explain how you know the number of endangered plants is different from the number of endangered animals.* | | | | | |
| **Differentiation Strategies** | | | | | | |
| **Extension** | | | **Intervention** | | | **Language Development** |
| Play “Build-a-Number” found in the Math Toolbox, Classroom Strategies, Blackline Master I-14 – I-18 instead of “Monkeying Around with Place Value”. | | | Provide number tiles for students to manipulate the POTD.  Read quiz aloud to comply with any IEPs. | | | Provide number tiles for students to manipulate the POTD.  Read quiz aloud to comply with any IEPs. |
| **Assessment(s):**   * PSJ work from last night’s homework. * Visual assessments on-going throughout the lesson. * Work from guided practice activities. * Quiz * Student self -assessment of the lesson and feedback in the parking lot. | | | | | | |
| **Teacher Reflection:** (Next steps?) | | | | | | |